# Robotic Space Exploration: Moon, Mars and Beyond



Public Lecture Series, July 6 - July 28, 2005

7:30 pm, Thursday, July 14
NASA Goddard Visitor Center Auditorium

# **Testing Space Robots** on Earth

## **Dr. Butler Hine**

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#### **Abstract**

Our new Vision for Exploration will require NASA to deploy complex robotic systems to work for and alongside humans during the exploration of the Moon and Mars. These robotic systems not only need to be capable and robust, but also must interact well with humans controlling them and working near them. The complexity of human-robotic operations increases with the number of deployed robotic systems and the type of work they perform. A critical step in our ability to deploy these complex operational systems is field testing prototype systems in appropriate terrestrial analogue environments, in order to drive out operational issues prior to actual use. For this talk I will give a brief overview of various analogue field missions performed by NASA to date, and discuss future types of testing we may require.

### **Brief Biographical Sketch**

Dr. Hine is currently the Director of the Exploration office at NASA Ames Research Center. He is the former Program Manager for the Computing, Information, and Communications Technology Program, a NASA effort to develop future computational capability, intelligent spacecraft and vehicles, and technology to enable highly capable teams of humans and automation to solve some of NASA's most pressing problems. Prior to rejoining NASA, Dr. Hine was President and CEO of a Silicon Valley software company which developed advanced visualization tools for managing large corporate networks. His previous NASA experience includes directing the Intelligent Mechanisms Laboratory at NASA Ames Research Center, which pioneered the use of telepresence and virtual reality to control remote science exploration systems.

Admission is free. Please RSVP online to reserve a spot. http://university.gsfc.nasa.gov/robotics/

For questions contact us by phone at 301-286-2893/ 1893 or by email at LRana@pop600.gsfc.nasa.gov

"Robotic Space Exploration: Moon, Mars and Beyond" is a public lecture series in conjunction with the 2005 NASA Robotics Internship Program.